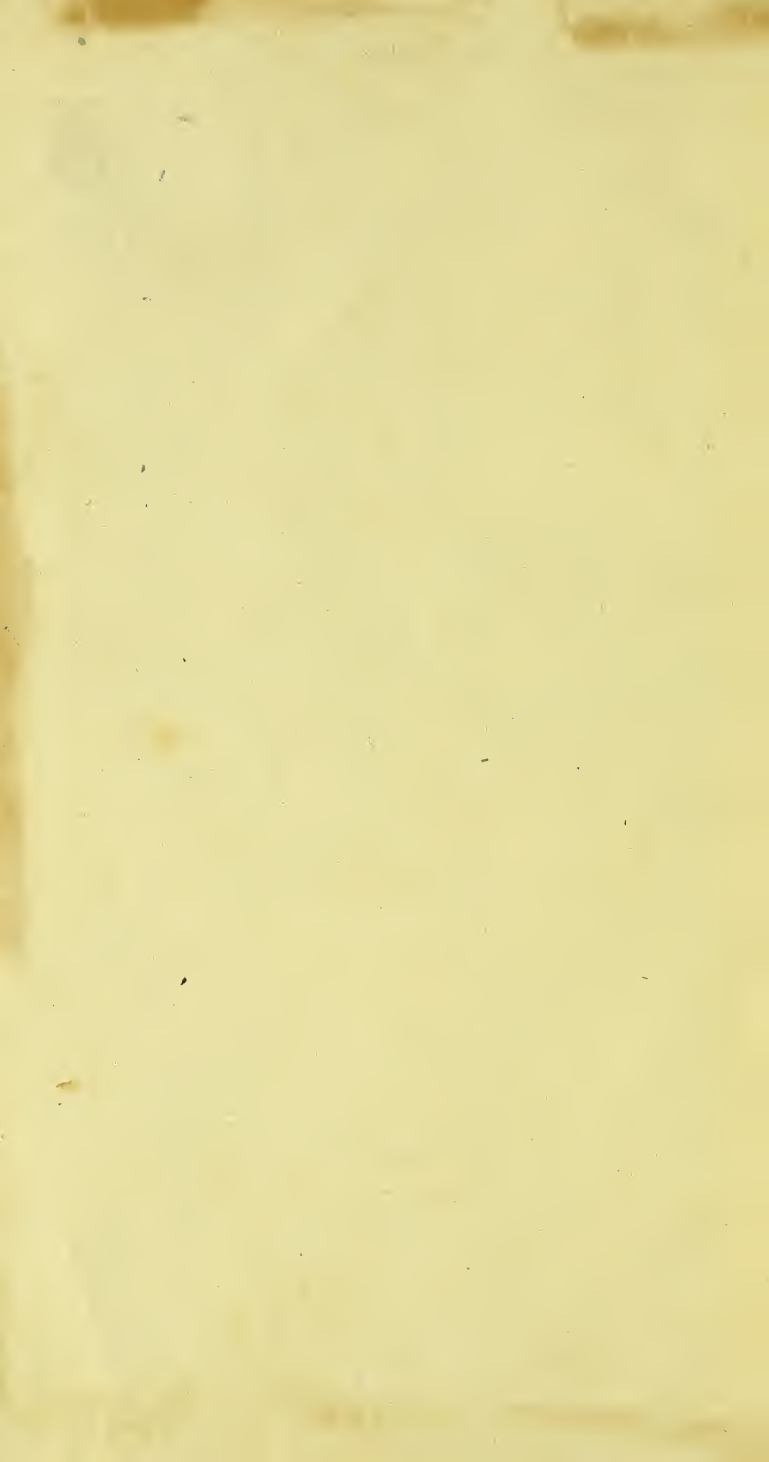






Musci pueri - Vita labor  
Necesse moriri -



## Test of perfect Vaccination - ✓


The parents should insist on the family surgeon's using the test discovered by Dr. Boyce of Edinburgh. It consists in vaccinating on the other arm from the one first vaccinated - If the first has been perfect, both pustules will ripen precisely at the same time: if this does not take place, the constitution has not been properly affected & it must be repeated. This is simple & easy, & ought never to be neglected -











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Handwritten text, likely bleed-through from the reverse side of the page. The text is written in cursive and is mostly illegible due to fading and the angle of the page. Some words are difficult to decipher but appear to include "I have" and "the" in the first line, and "the" and "the" in the second line.

To Charles Pennington Esq.  
with the author's respects.

DISSERTATIO MEDICA  
INAUGURALIS

DE VACCINA;

QUAM  
ANNUENTE SUMMO NUMINE,

Ex Auctoritate Reverendi admodum Viri,

*D. GEORGII HILL, S. S. T. P.*

ACADEMIÆ ANDREANÆ Præfecti;

NECNON

Amplissimi SENATUS ACADEMICI Consensu,

Et Nobilissimæ FACULTATIS MEDICÆ decreto;

PRO GRADU DOCTORIS,

SUMMISQUE IN MEDICINA HONORIBUS AC PRIVILEGIIS RITE  
ET LEGITIME CONSEQUENDIS;

Eruditorum Arbitrio Permittit

*THOMAS GEORGIUS DENNEY,*

BARBADENSIS,

SOCIETATIS A THOMÆ GUY NOSOCOMIO

Vulgò Nuncupatæ

SOCIUS HONORARIUS.

Die xxvi. MAII, horâ locoque solitis.

---

Ταῦτα μὲν τῇ κατὰ τὴν νόσον γενόμενᾳ.

ΘΟΥΚΥΔΙΔΗΣ.

---

EDINBURGI.

---

1802.

12396



Has  
Dilectissimæ necnon Colendissimæ  
Matri,  
MARGARETÆ DENNEY,  
Studiorum Primitias  
offert  
Filius Observantissimus.

Illustrissimo et Integerrimo Viro,  
Eidemque salutari Humanæ Vitæ Præsidio,

EDWARDO JENNER,

M. D. F. R. S. F. L. S. &c.

Hoc Opusculum

Dicat et Consecrat

AUCTOR REVERENTISSIMUS.

DISSERTATIO MEDICA  
INAUGURALIS  
*DE VACCINA.*

---

*Auctore* THOMAS GEORGIO DENNEY.

---

PROŒMIUM.

---

DE Vaccina in hujusmodi opusculo scribere aggressus, cum tanta jam in lucem ea de re prodierit doctrinæ copia, ut quicquam vix ampliùs aut docendum aut discendum superfit, haud equidem scio utrùm præposteram et supervacanei laboris operam frustrà insumpsisse videar. At quamvis nemo sit quin admirans fateatur maximam ex illâ propagatâ utilitatem in genus humanum redundasse eique morbo naturâ mitissimo vim inesse arcendæ prohibendæque variolæ omnino parem, non desunt tamen, qui, quòd tradita a JENNERO (cui nomini divinus habeatur honos) præcepta minus attentè perpenderint, vel futilibus modis novisque coloribus morbum hunc depingere gestiant, aut in describendis ejus indiciis et symptomatibus graviter errant, aut illi perversam omnino speciem perperàm affingunt et non suam. Aliquid

quid igitur in publicam utilitatem fortasse contulerit ejusmodi opusculum, quod totum in eo maxime versetur, ut ostendat quænam sint genuina morbi indicia quali ve ordine et progressu, ut peritissimorum medicorum experientiâ constat, occurrere deprehendantur, simulque, quod præcipuum est, quibus haud dubiis notis vera Vaccina a quibusdam abnormibus signis discerni possit, quæ quandoque infitionem subsecuta vero morbo ab inexpertis falsò ascribuntur.

### DE VACCINA FORTUITA.

Jamdudum quidem Australium Occidentaliumque Angliæ partium incolæ, imò et ipsi Hiberni notam habuere vaccinam, quippe quæ Corragiæ (Cork) veteri proprioque loci nomine appelletur *Shinah* : neque illos latuit ejusdem vis contra variolam efficacissima. Primus vero JENNER anno 1797 hanc doctrinam palâm professus est, quam quidem postquam veram esse permultis experimentis demonstravit, totus deinceps ad investigandam Vaccinæ naturam, hominesque, quidquid indagando perspexerit, edocendos indefesso animo vir liberalis incubuit.

Humido

Humido veris tempore hic morbus ita se prodit in vaccis, ut ex earum papillis quædam existant cærulei coloris vesiculæ, quarum concavum caput tumida et erythematosa inflammatione circumcingitur. Interim vaccæ non aliter ægrotant, nisi quod minor fiat lactis secretio. Haud multò post vaccinam contrahunt mulgentes, quorum e digitis exoriuntur subcæruleæ vesiculæ, quas circumdat rubor et inflammatio. Vix autem absorptus est humor, cum distendi et intumescere incipiunt axillares glandulæ, sequitur que febris paroxysmus et leve interdùm delirium. Præter illum, quem jam descripsimus, morbum, aliud in vaccarum uberibus reperire est affectionis genus, e cujus pustulis desumptum virus, si humano corpori inferatur, non eam vim habet, ut variolam arceat. His pustulis deest caput concavum colorque cæruleus et margini circumfusus rubor, quæ omnia veri morbi propria in prioribus nunquam desiderantur. Hæ verò spurie nulla ulceratione citò emarcescunt, ita tamen ut mulgentium manus interdùm et ipsæ pustulas contrahant; quanquam, meo quidem iudicio, has veri morbi pustulas esse nemo existimaverit rei medicæ paulò intelligentior. Spurius autem ex eo oriri potest, vel quòd vaccis mutetur alimentorum

alimentorum genus ficcaque hiberni pabuli natura pinguibus Vernalium herbarum succis excipiat, vel quòd ubera aut fugens vitulus sollicitando irriter, aut vepres aculeis pungant et vulnérant, aut venenosarum muscarum morsus inficiant, aut denique mulgentes asperiori pertractent manu.

### DE VACCINÆ ORIGINE.

E quodam morbi genere, quod equorum calces afficere solet et anglicè *grease* dicitur, ortam esse Vaccinam sentiunt JENNER, LOY alique plurimi; quippe qui humorem ex equorum illo morbo laborantium calcibus desumptum, si modo limpidus neque puris in morem crassior, ut monet JENNER, vaccarum papillis aut humano corpori inferatur, veram vaccinam creandi vim habere repperint. Rursùm verò ex equini humoris insitione vaccinam educere se nunquam potuisse WOODVILLE, COLEMAN alique nonnulli asserunt. Sed hoc, ut pote tantum negativo, argumento infirmari nequaquam potest JENNERI opinio. Neque Doctoris SACCO, Mediolanensis Medici, qui de vaccina nuperrimè scripsit, quamvis cum WOODVILLE et COLEMAN sentiat, valet auctoritas; cum equinum, quo usus est, hu-

morem

morem nullo modo limpidum sed puriformem fuisse ipse fateatur, eumque ab ipsis WOODVILLE et COLEMAN adhibitum fuisse verisimillimum est, quem vel e spuria quadam equini morbi specie, vel e genuina equidem, sed longiùs progressa desumpserant.

### DE VACCINA INSITIVA.

Primum quidem e veræ Vaccinæ pustulis tempestivè extractum comparetur virus, quo cum imbuta fuerit munda lanceola, ita cuticulam inter et cutem, planè juxta Deltoidis musculi insertionem, solerti inferenda est manu, ut, si fieri possit, nullus eliciatur sanguis totumque aut certè quamplurimum humorem retineat vulnusculum. Tum secundo tertio ve die circum vulnus existit levis inflammatio exiguusque tumor, quæ quidem paulatim ad sextum septimumve augentur diem, cum limpidi humoris plena apparet vesicula. Per septimum autem octavumque diem lata, circiter quantum patet solidus (*a shilling*) remanet inflammatio, interimque fit major pustula. At illi circa octavum nonumve diem deprimitur medium caput eminentique, circuli in modum, margine circumfunditur. Decimo die lentescit humor, quæque nitidior hætenùs et crassa fuerat vesicula, scabram mutetur in speciem coloremque fuscum induit. Decimo aut undecimo duode-



cimove die maxima est inflammatio et ad dimidii coronati (*a half crown piece*) magnitudinem diffusa. Postea verò ita decrescit in dies, ut decimo septimo aut octavo die crusta prorsus decidat.

In infantibus quidem rara admodum est totius corporis irritatio, in adultis verò interdum occurrunt inquietudo, rigores et cephalalgia; quæ auctus calor, axillæ glandularum tumor, frequens arteriarum pulsus, imò et in paucis anima aliquantulum foetida, excipiunt. Hæc tamen symptomata horas ultra duodecim ferè non perdurant.

*QUID VERUM INTER ET SPURIUM, UT  
VULGO APPELLATUR, MORBUM  
INTERSIT DISCRIMINIS.*

Venimus nunc ad eam argumenti partem, quæ attentius ac diligentiori curâ consideranda nobis videtur.

In vero morbo a tertio ad undecimum duodecimumve diem continenti progressu augentur rubor et inflammatio, quæ exindè paulatim decrescere incipiunt; at in spurio quæ secundo die nasci cœpit inflammatio, jam septimo vel octavo adulta est. Apparet in priori, quæ in posteriori  
nulla



nulla est, areola; illius inflammationis color roseus; hujus verò idem qui vulneribus esse solet. Veri morbi comes individua, in spurio ferè nunquam videtur ulceratio. Quæ in altero non ante decimum diem existit crusta, eam alter septimo vel octavo exhibet; quæque in posteriori jam undecimo vel duodecimo die decedit, eadem in priori ad decimum septimum vel decimum octavum permanet. Habet alter circumscriptam, alter vero abnormem et incertæ formæ pustulam. Quid plura! Qui in genuino morbo crustæ subfuscus, in spurio albidus est color. Nonnulla tamen exempla extitisse fatendum est, in quibus, cum pustula ad quintum sextum ve diem, omnia quidem veri morbi indicia ostendisset, exindè in abnormem et inequalem formam mutata degeneravit.

### *QUOMODO VACCINUM VIRUS SIT CONSERVANDUM.*

Cum omnia jam memorata signa eo, quem diximus, progressu apparuisse constiterit, tum genuinam esse vaccinam pronunciare minimè dubitandum est. Septimo autem aut octavo nonove die humor, dum limpidus est, e pustulâ depromendus; quem quidem PEARSON in phi-

alâ gas azoticum vel hydrogenium continentē servandum censet ; JENNER verò, ita fieri posse ratus, ut vaccini tabi natura factitiis aëribus dissolvi queat, illud inter duas plani vitri laminas depositum, in communi exsiccandum aëre multiplicique deinde chartâ involvendum esse monet. Tali quippe ratione servatum, genuinæ vaccinæ creandæ vim per tres aut quatuor menses retinere expertus ipse reperit. Quisquis autem eo uti voluerit, eidem tantulum aquæ frigidæ, quantum ad illud madefaciendum satis fuerit, admisceat.

### *DE ABNORMIBUS QUIBUSDAM SIGNIS QUID SENTIENDUM.*

E vaccini humoris infusione nonnunquam in variis corporis partibus extiterunt pustulæ ; quod quidem a se observatum WOODVILLE ipse testatur. Hæ verò ex eo oriri possunt, vel quòd mala sit corporis habitudo, vel quòd vim simul exerant variolosa effluvia, vel denique quòd pravus adhibitus fuerit et ineptus humor. Sive enim e genuinâ, sed longius progressâ, vel e spurîâ pustulâ depromptum sit virus, sive ipsum, primùm quidem idoneum et efficax, suam veræ  
vaccinæ

vaccinæ creandæ vim lapsu temporis amiserit, ex utrâque causâ sequuntur signa quædam abnormia genuini vero morbi simile omnino nihil. Paucas quidem interdum in vero etiam morbo pustulas circa vulnusculum apparere, si corpus fit admodum irritabile, non negaverim. Hæc verò ex illâ tantùm, quæ loci genuinâ pustulâ affecti propria est, non vero ex ullâ, quæ ad totum corpus pertineat, irritatione oriuntur.

#### *QUÆNAM SIT ADHIBENDA CURATIO.*

Si quis e vaccinæ infectione paulò graviùs ægrotaverit, illi medio quovis sale, nempe Natrone vitriolato vel Sodâ Phosphoratâ, alvus erit solvenda. Cum autem, quod vix aut ne vix quidem accidit, latissimè diffunditur inflammatio, tum illam aquæ lithargyri acetati solutione facilè compescueris. Quòd si permolestum evaserit ulcusculum, unâ aut alterâ aquæ Lithargyri Acetati guttâ citò sanabitur. JENNER ipse se nullum adhuc veræ vaccinæ exemplum reperisse mihi nuper professus est, in quo contra inflammationem et ulcusculum non valuerit hoc remedium. Imò et ego ipse in eo Nosocomio, quod a Variolâ nomen habet, permultos Vaccinâ laborantes

laborantes vidi, inter quos nullus unquam ullâ aliâ curatione indiguit. Hîc autem a proposito alienum fore non arbitror, si pauca, quæ ab ipso JENNERO accepi, de vaccinâ præcepta Anglicis verbis et vernaculo sermone ediderim; mihi quippe, si quid utile præcipiat hoc opusculum, ejus beneficio excludendi esse linguæ Latinæ rudes non videntur. Ignoscant igitur velim boni que consulant eruditi lectores, si, quod omnibus prodesse possit, linguâ omnibus intelligendâ referam.

Let the vaccine fluid be taken, for the purpose of inoculation, from a pustule that is making its progress regularly, and which possesses the true vaccine character, on any day from the fifth to the eighth, or even a day or two later, provided the efflorescence be not then formed around it. When the efflorescence is formed, it is always most prudent to desist from taking any more of the virus from that pustule.

To obtain the virus, let the edges of the pustule be gently punctured with a lancet in several points. It will gradually ooze out, and should be inserted upon the arm about the midway between

tween the shoulder and the elbow, either by means of a very slight scratch, not exceeding the eighth part of an inch, or a very small oblique puncture.

A little red spot will appear on the punctured part on the third day, if the operation succeed, which on the fourth or fifth becomes perceptibly vesicated. It goes on increasing till the tenth day, when it is generally furrounded by a rose-coloured efflorescence, which remains nearly stationary for a day or two. The efflorescence then fades away, and the pustule is gradually converted into a hard glossy scab, of a dark mahogany colour. These progressive stages of the pustule are commonly completed in sixteen or seventeen days.

A single pustule is sufficient to secure the constitution from the small-pox; but as we are not always certain the puncture may take effect, it will be prudent to inoculate in both arms, or to make two punctures in the same arm, about an inch and a half asunder, except in very early infancy, when there is a great susceptibility of local irritation.

If the efflorescence surrounding the pustule should be extensive, and occasion much local heat upon the arm, it may be cooled by the repeated application of pieces of folded linen dipped in cold water ; or still more expeditiously by a strong solution of the *aqua lythargyri acetati* in water ; an ounce, for example, of the former in five or six of the latter.

If the scab should at any time be prematurely rubbed off, and not succeeded by another within twenty-four hours, the part may be occasionally touched with the undiluted *aqua lythargyri acetati*

Vaccine virus, taken from a pustule, and inserted immediately in its fluid state, is preferable to that which has been previously dried ; but as it is not always practicable to obtain it in this state, we are compelled to seek for some mode of preserving it. Various means have been suggested, but from the test of long experience it may be asserted, that preserving it between two plates of glass is the most eligible. Let a piece of common window glass be cut into squares of about an inch each, so that they shall lie smooth when



when placed upon each other. Let the collected vaccine fluid be confined to a small spot (about the size of a split pea) upon the centre of one of these glasses; which should be suffered to dry in the common heat of the atmosphere, without exposure to the heat of fire or the sun. When dry, it should be immediately secured by placing over it the other piece of glass. Nothing more is necessary for its preservation, than wrapping it in clean writing paper.

The virus, thus preserved, when wanted for the purpose of inoculation, may easily be restored to its fluid state by dissolving it in a small portion of cold water, taken up on the point of a lancet. It may then be used in the same manner as when just taken from a pustule.

The vaccine fluid is liable, from causes apparently trifling, to undergo a decomposition. In this state it sometimes produces what has been denominated the spurious pustule; that is, a pustule, or an appearance on the arm not possessing the characteristic marks of the genuine pustule. Anomalies, assuming different forms, may be excited, according to the qualities of the virus applied,

c

applied, or the state of the person inoculated; but by far the most frequent variety, or deviation from the perfect pustule, is that which arrives at maturity, and finishes its progress much within the time limited by the true. Its commencement is marked by a troublesome itching; and it throws out a premature efflorescence, sometimes extensive, but seldom circumscribed, or of so vivid a tint as that which surrounds the pustule completely organized; and (which is more characteristic of its degeneracy than the other symptoms) it appears more like a common festering produced by a thorn, or any other small extraneous body sticking in the skin, than a pustule excited by the vaccine virus. It is generally of a straw colour; and when punctured, instead of that colourless, transparent fluid of the perfect pustule, its contents are found to be opaque. That deviation from the common character of the pustule, arising from vaccine virus which has been previously exposed to a degree of heat capable of decomposing it, is very different. In this instance, it begins with a creeping scab, of a pale brown or amber colour; making a long and slow progress, and sometimes going through its course without any perceptible efflorescence. Its edges are commonly elevated, and afford, on being punctured, a limpid fluid.

A little



A little practice in vaccine inoculation, attentively conducted, impresses on the mind the perfect character of the vaccine pustule ; therefore when a deviation arises, of whatever kind it may be, common prudence points out the necessity of re-inoculation, first with vaccine virus of the most active kind, and secondly, should this be ineffectual, with variolous virus. But if the constitution shews an insusceptibility of one, it commonly does of the other.

When any constitutional symptoms occur in inoculated Cow-pox, they are commonly first perceptible (especially in children) on the fourth or fifth day. They appear again, and sometimes in adults, not unlike a mild attack from inoculated small-pox, on the eighth, ninth, or tenth day. The former arise from the general effects of the virus on the habit, the latter from the irritation of the pustule.

If the effluvia of the small-pox have been received into the habit previously to the inoculation of the vaccine virus, the vaccine inoculation will not always be found to stop its progress, although the pustule may make its advances without interruption.

The

The lancet used for inoculation should always be perfectly clean. After each puncture, it is proper to dip it into water, and wipe it dry. The Practitioner should be particularly cautious in observing that its point be free from rust, either contracted by common means, or from the action of the vaccine virus ; which, even when dry and in contact with it, has a tendency, in a little time, to produce it ; therefore the preservation of vaccine virus upon a lancet, beyond the period of a few days, should never be attempted.

#### *PAUCA GENERALIA DE VACCINA.*

Utrùm variolæ in perpetuum repellendæ vim habeat vaccina, pauci dubitant. Talem esse ejus efficaciam, si illam cum cæteris morbis comparemus, verisimile admodum videtur. Nullum verò dubitationi locum relinquunt eorum exempla qui, cum quinquaginta vel sexaginta ante annos vaccinam subierint exindè a variola semper immunes, permanferunt. Mihi quidem nulla unquam sese obtulit opportuna rei experimentis comprobandæ occasio. Sed hîc Doctoris Tierney verba, quæ eòdem maximè pertinent, referre liceat.

“ Mense Julio, an. 1798, postquam JENNERI  
 “ opus perlegeram, centum et septuaginta homi-  
 “ nes, omnes Glocestrienses, variolarum infitioni  
 “ subjiciendi necessitas mihi occurrit; (namque  
 “ tunc temporis testimonia vaccinæ præstantiæ  
 “ nondum satis ampla fuerunt.) Infitionem per-  
 “ feci, atque ex toto numero duodecim se mor-  
 “ bum vaccinum olim expertos esse, nunciârunt.  
 “ Quum hanc faustam occasionem morbum ex-  
 “ plorandi, ducerem virus variolosum utrique  
 “ brachio horum duodecim hominum in se vi,  
 “ idemque in quibusdam eorum decies vel duode-  
 “ cies iteravi. Et quamvis levis inflammatio circa  
 “ ulcusculum orta sit, paulatim tamen evanuit,  
 “ (ut plerumque accidit quando affectus non ge-  
 “ neralis fit) neque ullus morbus universi corpo-  
 “ ris sequutus est. Iidem homines viginti dies  
 “ et ampliùs ægris variolis laborantibus, præser-  
 “ tim gravissimè affectis, inservierunt, ideoque  
 “ aërem miasmate varioloso omnino scatentem,  
 “ trahebant, neque tamen contagione ullo modo  
 “ affecti sunt.

“ Sic certior factus de vi, quam possidet vac-  
 “ cina, variolarum contagioni resistendi, vere  
 “ proximè subsequente, complures vaccini viri,  
 “ quod

“ quod a JENNERO acceperam, infitioni subjeci.  
 “ Postquam hi solita morbi symptomata experti  
 “ erant, et vigesimo primo circiter die postquam  
 “ omnia cessârunt, horum decem brachiis virus  
 “ variolosum more solito insemi. Hoc deciès feci,  
 “ neque tamen ullus effectus generalis sequutus  
 “ est; quamvis in uno ex iis brachium per duas  
 “ hebdomadas dolore affectum sit. Eventu hocce  
 “ non contentus, eosdem homines in nosocomii  
 “ parte, ægris variolosis dedicatâ, in aëre vario-  
 “ larum effluviis prægnante aliquam diù detinui.  
 “ Hîc per tres hebdomadas ægris invicem infer-  
 “ viebant, et infectioni omnino resistebant.  
 “ Mirum est hoc ipso tempore duos homines, qui  
 “ vaccinæ infitionem adeo timebant, ut eam sub-  
 “ ire iis persuaderi non potuerit, variolis correptos  
 “ esse; alterumque ad plures descendisse, alterum  
 “ vero e morbo ægerrimè evasisse. Ex illo tem-  
 “ pore vaccinæ infitionem sæpius pari successu  
 “ perfeci, et plurima eorum exempla huc adferre  
 “ possem. Verum satis sint exempla supra allata,  
 “ unde, ut spero, liquidò constat, vaccinam ad-  
 “ versus variolarum accessionem hominem om-  
 “ nino tutum reddere.”

Hoc autem imprimis notandum est, quod mul-  
 tis

tis exemplis expertus est JENNER, scilicet in corpus, quod sulphure repletum sit, recipi non posse vaccinam ; idemque futurum crediderim, si quovis alio stimulante medicamento, nempe mercurio, saturatum excitatum que fuerit. Hæc tamen, quæ corpori sulphure prægnanti cum vaccina est, repugnantia tepidi balnei usu vinci poterit.

#### QUIDAM APHORISMI DE VACCINA.

1<sup>mo</sup>. E quadam morbi specie, qui equorum calces afficere solet vulgoque *grease* appellatur, originem ducit vaccinus morbus.

2<sup>do</sup>. Vaccinæ multo mitior est quam Variolæ natura.

3<sup>tio</sup>. Genuinæ vaccinæ virtus inest ad excludendam variolam efficacissima.

4<sup>to</sup>. Effluviis nunquam grassatur hujus morbi contagio.

5<sup>to</sup>. Quisquis jam vaccinâ aut variolâ affectus est, non aliam in eo vim, nisi loco inciso circumscriptam, non verò latius pertinentem, exerere poterit vaccina.

6<sup>to</sup>. Si cui variolâ laboranti vaccinum virus inferatur, id morbum multo mitiorem efficiet, dummodo ante variolæ eruptionem fiat insitio.

7<sup>mo</sup>.

7<sup>mo</sup>. Vaccinam non capit corpus sulphure faturatum.

8<sup>vo</sup>. Nisi e pustulâ inter quintum nonumque diem, dum limpidum est, depromptum fuerit vaccinum, quod inferitur, virus, spurium morbum, non verò genuinum pariet infitio.

9<sup>no</sup>. Propriâ inflammationis specie pustulæque progressu et areolâ, quasi totidem manifestis indiciis, genuinus morbus a spurio dignoscitur.

10<sup>mo</sup>. Vaccina nunquam corpus aut ad Scrophulam aut cæteros, quos secum afferre solet variola, morbos contrahendos aptum efficit.

*F I N I S.*



